

Iran Red Crescent Med J. 2014 April; 16(4): e12950.

DOI: 10.5812/ircmj.12950

Published online 2014 April 5.

Research Article

# Various Indicators for the Assessment of Hospitals' Performance Status: Differences and Similarities

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Received: June 15, 2013; Revised: August 7, 2013; Accepted: September 5, 2013

**Background:** Hospitals are the most costly operational and really important units of health system because they consume about 50%-89% of total health resources. Therefore efficient use of resources could help in saving and reallocating the financial and physical resources.

**Objectives:** The aim of this study was to obtain an overview of hospitals' performance status by applying different techniques, to compare similarities and differences between these methods and suggest the most comprehensive and practical method of appraisal for managers and policy makers.

**Patients and Methods:** This is a cross sectional study conducted in all hospitals of Ahvaz (eight hospitals affiliated with Jundishapur University of Medical Sciences and eight non-affiliated hospitals) during 2007 to 2011. Two kinds of data were collected through separate special checklists. Excel 2007 and Windeap 2.1 software were applied for data analysis.

**Results:** The present findings show that the average of bed occupancy rate (BOR) in the studied hospitals was about  $65.91 \pm 1.16$ . The maximum number of inefficient hospitals in the present study happened in the years 2007, 2008 and 2010 (four hospitals) but there were two hospitals in the third part of the present graph which had maximum level of efficiency and optimal level of productivity in the years 2007 and 2009. Data Envelopment Analysis (DEA) showed that the mean score of technical efficiency for the studied hospitals is  $0.924 \pm 0.105$  with the minimum of  $0.585 \pm 0.905$  for hospital number 1. Furthermore It shows that only five hospitals (31.25%) reach complete technical efficiency (TE) scores across all five years of 2007-11 (TE = 1).

**Conclusions:** Results of the present and similar studies should be considered for the future planning and resource allocation of Iranian public hospitals. At the same time it is very important to consider need assessment results for each region according to its potentials, population under the coverage and other geographical and cultural indices. Furthermore because of potential limitations of each of the above models it is highly recommended to apply different methods of performance evaluation to reach a complete and real status view of the hospitals for future planning.

**Keywords:** Alachlor; Abstracting and Indexing as Topic; Hospitals

## 1. Background

Health is an absolute right of the all members of the society and health care sector is considered as one of the most significant service sections, so its indicators are considered as one of the main criteria developmental level and social welfare of any country (1). On the other hand, health sector resources are one of the issues addressed in most developing countries because more than five percent of gross domestic products (GDP) and about five to 10 percent of government's expenditure is usually allocated to this sector (2). So, as health care costs consume about 5%-

10% of GDP in the most underdeveloped countries such as Iran, all the institutions providing health services including hospitals will be facing budget issues in the future (3).

Hospitals are the most costly operational and really important units of health system because they consume about 50%-89% of total health resources (4). National statistics show that about 40% of governmental health expenses are related to hospital care in Iran (5). Hospitals, especially in developing countries are recognized by non-efficient management of resources, low profitability, providing

### Implication for health policy/practice/research/medical education:

This article provides a practical and fair guideline for policy makers and managers in health care area and provides a big picture of hospitals' performance status along with optimal solutions for enhancing productivity and efficiency.

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